RECEIVED
CENTRAL FAX CENTER

JUL 14 2006

IN THE UNITED STATES PATENT & TRADEMARK OFFICE
BOARD OF PATENT APPEALS & INTERFERENCES

In re Lahiri,	Serial No. 09/981,881
Appellant,	Docket No. AUS920010744US1
For: Apparatus and Method for Computer Screen Security	Art Unit 2135
	Examiner Patel
Filed: 10/18/2001	

SUBSTITUTE APPEAL BRIEF

April 14, 2006

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Certificate of Transmission
I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. 571-273-8300) on July 14, 2006.
Typed or printed name of person signing this certificate: RUDOLF O. SIEGESMUND
Signature: Rudolf O. Siegesmund

To the Honorable Commissioner for Patents:

The examiner of the pending application identified above has finally rejected the appellant's claims set forth therein, and the appellant has timely submitted a Notice of Appeal to the Board of Patent Appeals and Interferences. The appellant submits the following brief to support the appeal to the Board.

I. Real Party in Interest

The real party in interest in the present application is International Business Machines Corporation.

II. Related Appeals & Interferences

The appellant, the appellant's legal representative, nor the assignee has any knowledge of any application, patent, appeal, interference, or judicial proceedings which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims

The application included 30 claims. Claims 1-4, 6-9, 11-13, 16, 18-21 and 23-26 are pending. Claims 10, 14, 15, 17, and 22 have been cancelled. No claims have been allowed. The examiner has rejected all pending claims.

IV. Status of Amendments

All of the amendments have been entered in the present case.

V. Summary of Claimed Subject Matter

Independent claim 1 recites a method of providing computer screen security for an authorized user comprising: using a computer program in a computer having a computer screen (8:15-18), dividing an original image on the computer screen into an array of screen segments (10:8-9); changing the orientation of each of the screen segments so that the original image can only be read by the authorized user viewing at a

personal display screen connected to a personal display computer (14:18-15:5); wherein the computer and personal display computer are adapted for electronic communication so that the computer program causes the computer to transmit a parameter to the personal display computer (15:3); wherein the personal display computer uses the parameter to orient each of the screen segments and displays an undivided image on the personal display screen so that a user can view the original image on the personal display screen (15:3-5); and wherein the original image is not visible at the computer screen (10:23).

Independent claim 9 recites a method of providing security for a computer screen comprising: using a program in a computer, causing the computer to divide an image into an array of screen segments on the computer screen (2:19-21; 8:15-18) change the orientation of each of the screen segments so that the image can be read only by a person wearing a set of display glasses (14:18-15:5; 12:7-11) and the computer screen is incomprehensible to a normal viewer (10:22-23; 12:7-11); transmitting a codeword to a personal display computer in the display glasses (14:23); responsive to receipt of the codeword by the personal display computer, accessing a parameter from a personal display computer memory (15:3); and wherein the display glasses use the parameter to reorganize the scrambled image on the computer screen so that an authorized user can comprehend the image (12:7-11).

Independent claim 12 recites an apparatus for providing computer screen security comprising: a programmable processor (6:14); a storage medium (6:14); a program residing in the storage medium (10:11-12); wherein the program causes the processor to: divide an image into an array of screen segments on a computer screen (10:18); and change the orientation of each of the screen segments so that the image can be read only

by viewing through an array of lens units that reorganize the image displayed on the computer screen (10:22-23); transmit the array of screen segments with changed orientation to a personal display computer connected to an array of lens units (14:10-11); transmit a codeword to the personal display computer (14:22-24); and wherein the personal display computer uses the codeword to configure the array of lens units to correspond to a changed orientation of the screen segments created by the computer program (15:2-5).

Independent claim 13 recites an apparatus for providing computer screen security comprising: a computer having a programmable processor connected to a storage medium (6:14); a scrambling program residing in the storage medium (10:11-12); wherein the scrambling program causes the programmable processor to: divide an image into a plurality of screen segments and change the orientation of each of the plurality of screen segments so that the image is scrambled (10:18); transmit a scrambled image to a personal display computer (14:21-23); wherein the personal display computer unscrambles the scrambled image so that the original image is displayed on a personal display screen connected to the personal display computer (15:3-5); and wherein the personal display screen has a frame adapted for wear by a user in the manner of glasses (13:13).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Does the prior art upon which the examiner relies teach or suggest all of the limitations of claims 1-4, 6-9, 11-13, 16, 18-21 and 23-26?

2. Has the examiner provided substantial evidence of a motivation to modify or combine the teachings of the prior art in regard to claims 1-4, 6-9, 11-13, 16, 18-21 and 23-26 ?

3. Has the examiner impermissibly evaluated the appellant's claims "part by part," using the appellant's claims as a "roadmap to find the prior art components of claims 1-4, 6-9, 11-13, 16, 18-21 and 23-26?.

VII. ARGUMENT

A. Claim Rejections – 35 U.S.C. § 103

1. Applicable law.

An applicant's claimed invention may be unpatentable under 35 U.S.C. § 103 if it would have been "obvious" to a person of ordinary skill in the art to modify or combine the prior art in order to meet the claims, even if a single reference does not anticipate the claimed invention. *See* 35 U.S.C.S. § 103(a); *Beckson Marine v. Nfm, Inc.*, 292 F.3d 718, 727 (Fed. Cir. 2002) (stating that "obviousness may render a claimed invention invalid where the record contains a suggestion or motivation to modify the prior art teaching to obtain the claimed invention," even if the prior art does not "reach expressly each limitation exactly"); *Hartness Int'l, Inc. v. Simplimatic Eng'g Co.*, 819 F.2d 1100, 1108 (Fed. Cir. 1987) ("the inquiry is not whether each element existed in the prior art, but whether the prior art made obvious the invention as a whole for which patentability is claimed"). "Obviousness" is a legal conclusion based on underlying findings of fact.[1] *In*

[1] Legal conclusions of obviousness are reviewed de novo, while the underlying factual conclusions are reviewed for substantial evidence. *In re Peterson*, 315 F.3d 1325, 1328 (Fed. Cir. 2003).

re Peterson, 315 F.3d 1325, 1328 (Fed. Cir. 2003). The underlying factual inquiry includes determining "the scope and content of the prior art;" ascertaining the "differences between the prior art and the claims at issue;" and resolving "the level of ordinary skill in the pertinent art." *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966); *In re Zurko*, 258 F.3d 1379, 1383-84 (Fed. Cir. 2001).

The examiner, though, carries the initial burden of establishing a *prima facie* case of obviousness before rejecting a claimed invention under 35 U.S.C. § 103. *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998); *In re Alton*, 76 F.3d 1168, 1175 (Fed. Cir. 1996); *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992); *In re Wertheim*, 541 F.2d 257, 263 & 265 (C.C.P.A. 1976); *MPEP* § 2141, 2142, 706.02(j); *see also* 35 U.S.C.S. § 132. To establish *prima facie* obviousness of a claimed invention, the examiner must demonstrate with substantial evidence that all the claim limitations are taught or suggested by the prior art. *See, e.g., In re Zurko*, 258 F.3d at 1384-85 (holding invention was not obviousness because prior art failed to teach single element); *In re Grasselli*, 713 F.2d 731 (Fed. Cir. 1986) (finding that prior art was deficient in at least one element – the claimed invention could not have been obvious without motivation to add element); *accord MPEP* § 2143.03 (citing *In re Royka*, 490 F.2d 981 (CCPA 1974)).

But most, if not all, inventions arise from a combination of old elements. *In re Kotzab*, 217 F.3d 1365, 1369 (Fed. Cir. 2000) (citing *In re Rouffet*, 149 F.3d at 1357). "Thus, every element of a claimed invention may often be found in the prior art" and the examiner must consider the claimed invention as a whole. *Id.* at 1369-70; *accord* MPEP § 2141.02. "[I]dentification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention." *Kotzab*, 217 F.3d at 1370. The

examiner may not evaluate the invention "part by part," using the invention as a "roadmap to find its prior art components." *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1337 (Fed. Cir. 2005).

Accordingly, there must be some motivation, suggestion or teaching of the desirability of making the specific combination to establish obviousness based on a combination of the elements disclosed in the prior art. *Princeton Biochemicals*, 411 F.3d at 1337; *Kotzab*, 217 F.3d at 1370; *accord MPEP* § 2143.01. Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. *Kotzab*, 217 F.3d at 1370. The teaching, suggestion, or motivation must be found either explicitly or implicitly in the references themselves, in the nature of the problem to be solved, or in the knowledge generally available to one of ordinary skill in the art. *Beckson Marine*, 292 F.3d at 728 (citing *Rouffet*, 149 F.3d at 1357). It is the duty of the examiner to identify the source of the motivation, and to explain why the combination of the teachings is proper. *Rouffet*, 149 F.3d at 1356-57; *In re Fitch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) ("The mere fact that the prior art may be modified in the manner suggested by the examiner does not make the modification obvious unless the prior art suggested the desirability of the modification"). Hindsight reconstruction is impermissible. *Id.*

2. The examiner has failed to establish *prima facie* obviousness because the prior art cited by the examiner does not teach all of the claimed limitations.

A. The examiner erred in rejecting claims 1-4, 6-9, 11-13, 16, 21, 23-25 and 26 as being unpatentable over Jones US Pub. No. 2002/0101988) and in view of Kajiwara (US Pub. 2002/0061140).

(1) Claim 1. The examiner cited paragraph 0005, lines 3-6, which states "...incident light emitted from a display so as to render encrypted images appearing on the display that are undecipherable to the naked eye, readable when the screen is viewed through the lenses." While the image has been scrambled, the image is not transmitted electronically but rather is seen and processed by an optical character reader. Thus, Jones does not disclose transmission of a scrambled image from the display to the lenses. Rather, Jones discloses either glasses that optically (mechanically) unscramble the image, or glasses with an optical character reader to digitize the image viewed from the display (*see* 0031, lines 4-7). After receiving the image (the "incident light"), Jones' glasses convert the visual image into a digital image and send the digitial image to a processor in the same glasses. Thus, Jones may be distinguished by the fact that Jones does not disclose transmission of a digital image between a scrambled source and a display where the unscrambled image may be read.

The examiner further cited paragraph 0031, lines 6-11, which states:

> The digitized image information is sent to a processor 52. The processor includes an authentication module 53, which performs processing task similar to the tasks performed by the dongle 4 described above, and a decryption module 55 which decrypts the image according to an algorithm that corresponds to the encryption algorithm used at the kiosk encryption module 16.

The digitized image which Jones sent to the processor was created in Jones' decryption glasses. See Figure 7, optical character reader 51, and paragraph 00031.

The examiner further cited paragraph 0032, which states:

> A transaction process is described with reference to FIG. 8. When a transaction at a kiosk 5 begins, in step 100, a challenge 8 that appears on

> the kiosk display is read and digitized by OCR 51, which sends the information to the authentication module 53. In step 110, the authentication module 53 sends a prompt signal to the glasses display 57 requesting the client 2 to enter a pass-phrase. The client 2, enters a secret pass-phrase on the glasses keypad 58, and the authentication module 53 calculates a response 9 based upon the challenge 8 and the pass-phrase on the glasses keypad 58, and the authentication module 53 calculates a response 9 based upon the challenge 8 and the pass-phrase, which the client 2 then enters onto the keypad 10 of the kiosk 5 (step 120). A series of challenges 8 and responses 9 may follow, in steps 130 and 140 before authentication is complete (step 150). Successful authentication confirms the sequence number stored in memory module 54 because the number of hash-function iterations matches between the kiosk system and the decryption glasses.

Jones discloses sending a signal to the decryption glasses prompting the user to enter a pass-phrase. The user can then enter a pass phrase on a keyboard on the Jones decryption glasses. But this is the only transmission disclosed by Jones, and does not include transmission of a scrambled image to the glasses. Rather, the user of Jones' glasses sees the scrambled image in the glasses and the image is captured by the OCR and converted to a digital image in the glasses.

The examiner further cited Jones, paragraph 0033, which states:

> In step 160, the decryption module 55 reads the sequence number, and selects the stored decryption scheme associated with the sequence number. The image data appearing on the kiosk screen 5 that is read and converted by the OCR 51 is sent to the decryption module which transforms the data, in step 170, according to the decryption technique. The resulting decrypted data is then delivered to the glasses display 57 (step 180).

In response to successful authentication, Jones reads a sequence number and selects a stored decryption scheme. But the decryption is of the image received by the OCR. Because the scrambled image is not transmitted directly from the kiosk, any errors in the conversion by the OCR could affect the proper unscrambling of the image. Applicant's

invention does not have this problem as the claimed invention electronically transmits the scrambled image from a computer to a personal display computer.

The examiner further cited the above references for all elements of claim 1 except for "dividing the image into an array of screen segments. The examiner cited Kajiwara, paragraph 0108, for teaching "dividing the image into an array of screen segments (i.e. encoding, encrypting, ciphering)." Paragraph 108 states the following:

> The tile dividing unit 1401 temporally stores the four images to be encoded (a piece of multi-level image data and three pieces of bi-level image data) input through the image data input unit 201 in a buffer (not shown in the figure) in the tile dividing unit 1401. Upon storing the four images to be encoded, the tile dividing unit 1401 divides each image into sixteen tiles as shown in FIG. 15 and then extracts a tile of the same position in each of the multi-level image data A, B and C, arranges the tiles from the four images for each tile position and outputs them Numbers are assigned to the tiles from left to right and top to bottom, for example, a tile in the upper-left corner is referred to tile 0, a tile adjacent on the right thereto is tile 1, ... and so on. By identifying the rearranged tiles with the tile numbers thus assigned, the image data (tile data) is output from the tile dividing unit 1401 in the order a shown in FIG. 16.

While Kajiwara describes dividing an image into sections, Kajiwara does not disclose the same process as applicant. Kajiwara discloses an "inverse discrete waveform transform unit 104, a bi-level data decoding unit 105, an image composition unit 106, a tile connecting unit 107 and an image display unit 107" (see 0103, lines 4-6). Kajiwara's complex process is described in paragraphs 0078 through 0105, and paragraph 0108 must be read in the complete context of the Kajiwara process. When read in context of the Kajiwara process, the reference does not disclose applicant's process.

The examiner further stated that "it would have been obvious to a person of ordinary skill in the art ... to incorporate the teaching of Kajiwara into the teaching of Jones" to divide [sic] the image into an array of screen segments," and that a person skilled in the art would be motivated to encode the data and decode the encoded data in order to display on the image display unit (citing Kajiwara 0007 and 0093). Paragraph 0007 states: "[a]t first, as in the case of the above-described first embodiment, a piece of multi-level image and three pieces of bi-level image data different in size (referred to as bi-level image data A, B and C), four images in total, are input through the image data input unit 201 in sequence." Paragraph 0093 states: "[t]he image display unit 107 causes a display screen to display the composite image generated in the image composition unit 106." A person skilled in the art would not be motivated to combine the Kajiwara process with Jones because the references to Kajiwara 0007 and 0093 do not provide motivation to combine an "inverse discrete waveform transform unit" with applicant's personal display computer. Moreover, applicant's claimed invention does not involve bi-level images or sequencing of four images through an image data input unit.

(2) Claim 2. With respect to claim 2, he examiner cited Jones, paragraph 00029 lines 1-2, which states that "inversion of the text messages on a kiosk screen is illustrated in FIGS. 5 and 5a." As explained above, the inversion of the text message on the screen is a physical image that is not transmitted electronically to the device to unscramble the image. Rather, the scrambled image is viewed by the unscrambling device and the viewed optical image is converted into a digital image with all of the possibilities for error in unscrambling attendant to such a process. Since the inversion of

the text message does not involve a scrambled image transmitted to the unscrambling device, the reference is not applicable to applicant's claimed invention.

(3) Claim 3. With respect to claim 3, the examiner cited Kajiwara, paragraph 0057 which states: "two dimensional discrete wavelet transform two or more times only to the sub-band LL, the image is decomposed (i.e. rot or cumble) into seven sub-bands LL, LH1, HL1, HH1, LH2, HL2 and HH2 as shown in FIG. 5)." As explained above, Kajiwara's process is entirely different from applicant's process. Since Kajiwara discloses a discrete wavelet transform process requiring an inverse discrete wavelet transform unit 104 (*see inter alia*, 0088), Kajiwara fails to disclose the element for which it is cited.

(4) Claim 4. With respect to claim 4, the examiner cited Kajiwara, Fig. 4C and paragraph 0057 (same quote as for claim 3) and paragraph 0010, lines 4-6, which state: "encoding image data to generate encoded data capable of expressing multiple self-similar image of different sizes corresponding to the image data." The reference from Kajiwara must be read in the full context of Kajiwara's disclosure. As explained above, Kajiwara involves a discrete wavelet transform, and is not a proper reference against applicant's claimed invention.

(5) Claims 6, 7 and 8. Applicant submits that claims 6, 7, and 8 depend from an allowable base claim.

(6) Claim 9. With respect to claim 9, the examiner cited Jones, paragraph 0032, lines 5-10. "In step 110, the authentication module 56 sends a prompt signal to the

glasses display 57 requesting the client 2 to enter a pass-phrase. The client 2, enters a secret pass-phrase on the glasses keypad 58." The examiner further cited paragraph 0033, lines 1-13. "In step 160, the decryption module 55 reads the sequence number, and selects the stored decryption scheme associated with the sequence number." The examiner further cited paragraph 0032, lines 13-15. "[s]uccessful authentication confirms the sequence number stored in memory module 54" The examiner further cited paragraph 0033, lines 4-7. "[T]he decryption module which transforms the data, in step 170, according to the decryption technique. The resulting decryption data is then delivered to the glasses display 57 (step 180)." The examiner further cited Fig. 7 and paragraph 0032, lines 6-11. "[T]he processor includes an authentication module 53" (lines 16-17). and "a decryption module 55 which decrypts the image data according to an algorithm." The examiner cited the abstract for disclosing, in the examiner's words, "encryption of image and the encrypted image is decrypted using the decryption module on display glasses."

Further with respect to claim 9, the examiner stated that "Jones doesn't expressively teach that [sic] dividing the image into an array of screen segments" The examiner cited Kajiwara, paragraph 0108, lines 6-7. The section states" .... the tile dividing unit 1401 divides each image into sixteen tiles as shown in FIG. 15 ...." The examiner further cited Kajiwara, Fig. 3. According to the "[b]rief description of the drawings, FIG. 3 "shows four images to input to an image data input unit 201. Paragraph 0050 states that "the image encoding apparatus generates a single code string of four images..." "Examples of the above described four images input to the image data are shown in FIG. 3." The examiner further cited Fig. 4B. According to the "[b]rief

description of the drawings, FIG. 4B is another view illustrating the two dimensional discrete wavelet transform." The examiner further cited Fig. 4C. According to the "[b]rief description of the drawings, FIG. 4C is "another view illustrating the two dimensional discrete wavelet transform." Paragraph 055 explains that:

> The two-dimensional discrete wavelet transform is implemented by applying one-dimensional transform in each of the horizontal and vertical directions. At first, the one-dimensional discrete wavelet transform is applied to an image to be encoded (FIG. 4A) in the horizontal direction to decompose the image into a low frequency sub-band L and high frequency sub-band H (FIG. 4B). Furthermore, one-dimensional discrete wavelet transform in the vertical direction is applied to each of the sub-bands LL, HL, LH and HH (FIG. 4C).

The examiner cited paragraph 0051, lines 1-3 which states: "[i]n FIG. 3, the numbers of pixels in the horizontal and vertical directions of the multi-level image are supposed to be represented as (X,Y), and then the numbers of pixels ...." The examiner cited paragraph 0010, lines 4-6 which states, "expressing multiple self-similar images of different sizes corresponding to the image data." The examiner cited paragraph 0059, lines 13-17, which states, "[t]he program code according to the flowchart is supposed to be stored in a memory (not shown) such as ROM or RAM of the image encoding apparatus in this embodiment, and read and executed by a CPU (also not shown)." The examiner cited paragraph 0102, lines 1-3, which states "[t]he encoding processing part is constituted by the image data input unit 201, tile dividing unit 1401, encoder selection unit 202, discrete wavelet transform unit 203 ...."

The examiner cited paragraph 0108, lines 6-11 which state "...the tile dividing unit 1401 divides each image into sixteen tiles as shown in FIG. 15 and then extracts a tile of the same position in each of the multi-level image data and bi-level

image data A,B and C, arranges the tiles from the four images for each tile position and outputs them." The examiner cited paragraph 0010, lines 4-6 (see discussion above for 0010, lines 4-6). The examiner cited paragraph 0054, lines 1-5 which states:

> The discrete wavelet transform unit 203 performs a two-dimensional discrete wavelet transform on the multi-level image data input through the encoder selection unit 202, and the image data are decomposed into multiple sub-bands.

The examiner cited paragraph 0057 which states "[b]y applying the above-described two-dimensional discrete wavelet transform tow more times only to the sub-band LL, the image is decomposed into seven sub-bands LL, LH1, HL1, HH1, LH2 and HH2 as shown in FIG. 5.

The examiner further stated that "it would have been obvious ... to incorporate the teaching of Kajiwara into the teaching of Jones to dividing [sic] the image into an array of screen segments." The examiner further stated that the "modification would be obvious because one of ordinary skill in the art would be motivated to encode the data and decode the encoded data that display on the image display unit (citing Kajiwara, paragraphs 0007, 0093). Kajiwara paragraph 0007 states: "an image data decoding means capable of selectively decoding multiple pieces of image data of different sizes from the encoded image data included in the encoded data string." Kajiwara, paragraph 0093 states: "[t]he image display unit 107 causes a display screen to display the composite image generated in the image composition unit 106."

Applicant submits that Jones does not disclose transmission of a digital image between a scrambled source and a display where the unscrambled image may be read. Indeed, claim 9 recites a defined term, "display glasses." Applicant defined display glasses as "a set of glasses that displays the computer screen image transmitted by cable

or wireless technology from a computer, containing a personal display computer to unscramble a transmitted computer screen image, and so constructed that only the person wearing the glasses can see the transmitted computer screen mage." (12:7-11) Kajiwara discloses an "inverse discrete waveform transform unit 104, a bi-level data decoding unit 105, an image composition unit 106, a tile connecting unit 107 and an image display unit 107" (see 0103, lines 4-6). Kajiwara's complex process is described in paragraphs 0078 through 0105, and paragraph 0108 must be read in the complete context of the Kajiwara process. When read in context of the Kajiwara process, the reference does not disclose applicant's process.

(7) Claim 12. In regard to claim 12, the examiner cited the rejections of claims 1 and 9 and in addition: In addition, the examiner cited Jones, Fig. 1 and Fig. 7 (processor 12, processor 52) The brief description of the drawings describes FIG. 1 as "a block diagram showing a schematic configuration of an image decoding apparatus of a first embodiment according to the present invention" FIG. 7 as "a flowchart showing a process in a code string formation." The examiner further cited Jones, Fig. 1 and Fig. 7 (storage module 15, memory module 54). The examiner further cited Jones, paragraph 0021, lines 11-12 which states that "a sequence number is stored in storage module 15." The examiner further cited Jones, paragraph 0031, lines 12-13 which states that "memory module 54 stores information." Jones does not disclose transmission of a digital image between a scrambled source and a display where the unscrambled image may be read. Kajiwara discloses an "inverse discrete waveform transform unit 104, a bi-level data decoding unit 105, an image composition unit 106, a tile connecting unit 107 and an

image display unit 107" (see 0103, lines 4-6). Kajiwara's complex process is described in paragraphs 0078 through 0105, and paragraph 0108 must be read in the complete context of the Kajiwara process. When read in context of the Kajiwara process, the reference does not disclose applicant's process.

(8) Claim 13. In regard to claim 13, the examiner cited the rejections of claim 12 and in addition, cited Jones, paragraph 0006 which states:

> In another embodiment, a pair of decryption glasses with processing capabilities is provided. The decryption glasses include an optical sensor, a processor and a display screen. The optical sensor receives images appearing on an external screen that have been encrypted to be undecipherable to the naked eye, and coverts the received images into digital data. This data is sent to the processor where it is decrypted, allowing underlying messages to be deciphered and shown on the display screen.

The examiner also cited Jones, Fig. 7 which depicts "smart decryption glasses" which are described in paragraph 0031. The glasses require an optical character reader (0031, lines 4) to receive and digitize an image. The glasses are not connected to a computer which generates images by a transmission link.

(9) Claim 16. In regard to claim 16, the examiner cited Jones, Fig. 7, component 52 (processor), 54 (memory), paragraph 0031, lines 12-13, "memory module 54 stores information such as the sequence number of the transaction/authentication session," paragraph 0033, lines 1-3, "the decryption module 55 reads the sequence number, and selects the stored decryption scheme associated with the sequence number." Jones does not disclose transmission of a digital image between a scrambled source and a display where the unscrambled image may be read.

(10) Claim 21. In regard to claim 21, the examiner cited the rejection of claim 13 and, in addition, Jones, Fig. 7, component 57 and 52. Applicant submits the same arguments as for claim 13.

(11) Claim 23. In regard to claim 23, the examiner cited the rejection of claim 16 and in addition, Jones, paragraph 0033, lines 1-3, "the decryption module 55 reads the sequence number, and selects the stored decryption scheme associated with the sequence number. Applicant submits the same arguments as for claim 16.

(12) Claim 24. In regard to claim 24, the examiner cited the rejection of claim 13 and claim 2, and in addition, Jones paragraph 0022, lines 18-22. Applicant submits the same arguments as for claim 13 and 2.

(13) Claim 25. In regard to claim 25, the examiner cited the rejection of claims 13 and 3. Applicant submits the same arguments as for claims 13 and 3.

(14) Claim 26. In regard to claim 26, the examiner cited the rejection of claims 13 and 4. Applicant submits the same arguments as for claims 13 and 4.

B. The examiner erred in rejecting claims 18, 19, and 20 over Jones in view of Kajiwara and further in view of Kishida (US Pub. No. 2002/0015008).

(1) Claim 18. In regard to claim 18, the examiner cited the rejections of claims 13 or 16 and in addition cited Jones, paragraph 0006 which states:

> In another embodiment, a pair of decryption glasses with processing capabilities is provided. The decryption glasses include an optical sensor, a processor and a display screen. The optical sensor receives images appearing on an external screen that have been encrypted to be undecipherable to the naked eye, and coverts the received images into digital data. This data is sent to the processor where it is decrypted, allowing underlying messages to be deciphered and shown on the display screen.

The examiner further cited Kajiwara, paragraph 0082 which states:

> The code output unit 207 outputs the code strings generated in the code string formation unit 206 to the outside of the apparatus. The code output unit 207 is, for example, a storage device such as a hard disk or memory, an interface of network lines, or the like.

The examiner further cited Kajiwara, paragraph 0083, code output unit 207, encoded data input unit 101, for example an interface of network lines, or the like.

The examiner stated that Jones and Kajiwara don't expressively mention that transmitter/receiver (i.e. communication interface) and cited Kishida, Fig. 1, component 23 communication interface). The examiner further stated that "it would have been obvious ....to incorporate the teaching of Kishida into the teaching of Jones and Kajiwara to have [a] transmitter/receiver" and that the motivation would be to have a transmitter/receiver" which can be utilized for communicating with other devices.

Jones does not disclose transmission of a digital image between a scrambled source and a display where the unscrambled image may be read. Kajiwara discloses an "inverse discrete waveform transform unit 104, a bi-level data decoding unit 105, an image composition unit 106, a tile connecting unit 107 and an image display unit 107" (see 0103, lines 4-6). Kajiwara's complex process is described in paragraphs 0078 through 0105, and paragraph 0108 must be read in the complete context of the Kajiwara process. When read in context of the Kajiwara process, the reference does not disclose applicant's process.

(2) Claim 19. In regard to claim 19, the examiner cited the rejection of claim 18 and in addition cited Kishida, Fig. 4 component 113 Bluetooth module and

paragraph 0049, line 2 which states, "communication interfaces 13 and 23 using Bluetooth." Applicant submits the same argument as for claim 18.

(3) Claim 20. In regard to claim 20, the examiner cited the rejection of claim 18, and in addition cited Kishida, Fig. 4, component 113 Bluetooth module, and paragraph 0049, line 2, "communication interfaces 13 and 23 using Bluetooth (which is wireless technology." Applicant submits the same arguments as for claim 18.

3. The examiner has failed to provide substantial evidence of the alleged motivation to modify or combine the teachings of the prior art, which is required to establish *prima facie* obviousness for claims 1-4, 6-9, 11-13, 16, 18-21 and 23-26.

Assuming *arguendo* that the prior art cited by the examiner does, in fact, teach all of the limitations in claims 1-4, 6-9, 11-13, 16, 18-21 and 23-26, the examiner nonetheless must demonstrate some motivation, suggestion or teaching of the desirability of making specific combinations of prior art to establish obviousness based on a combination of the elements disclosed in the prior art. *Princeton Biochemicals*, 411 F.3d at 1337; *Kotzab*, 217 F.3d at 1370; *accord MPEP* § 2143.01. An alleged suggestion or motivation to modify the teaching of the prior art must be supported by particular findings and substantial evidence. *Kotzab*, 217 F.3d at 1370 & 1371. Substantial evidence is something less than the weight of the evidence but more than a mere scintilla of evidence. *Kotzab*, 217 F.3d at 1369. Broad conclusory statements of suggestion or motivation standing alone are not "evidence." *Id.* at 1370.

The examiner has not provided any particular findings to explain why the combination is proper, nor has the examiner identified the *source* for the alleged motivations. *Rouffet*, 149 F.3d at 1356-57; *Fitch*, 972 F.2d at 1266. Accordingly, the

examiner's broad statements cannot stand as evidence. Without particular findings, the Board should infer that the examiner "fell into the hindsight trap." *Kotzab*, 217 F.3d at 1371; *Rouffet*, 149 F.3d at 1358.

4. The examiner has impermissibly evaluated the appellant's claims "part by part," using the appellant's claims as a "roadmap to find its prior art components" (claims 1-4, 6-9, 11-13, 16, 18-21 and 23-26)

Finally, the Board should reverse all of the examiner's rejections under § 103 as improper because the examiner has impermissibly evaluated the appellant's claims part by part. Assuming *arguendo* again that the prior art does, in fact, teach all of the limitations in claims 1-4, 6-9, 11-13, 16, 18-21 and 23-26, the prior art nonetheless fails to defeat patentability of the "whole claimed invention." *Kotzab*, 217 F.3d at 1370. The examiner may not evaluate the invention "part by part," using the invention as a "roadmap to find its prior art components." *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 411 F.3d 1332, 1337 (Fed. Cir. 2005). The examiner *must* consider the claimed invention as a whole. *Kotzab*, 217 F.3d at 1369-70; *accord* MPEP § 2141.02.

Here, the examiner appears to be evaluating the appellant's claims word by word, without any consideration or thought to the context of those words – much less the invention as a whole. This tactic clearly is impermissible and should not be condoned by the Board. *See Princeton Biochemicals*, 411 F.3d at 1337.

VIII. CONCLUSION

With respect to the examiner's rejection of claims 1-4, 6-9, 11-13, 16, 18-21 and 23-26 under § 103, the prior art upon which the examiner relies fails to teach or suggest all of the limitations in the appellant's claimed invention. The examiner has failed to

properly identify the source of the motivation, if any, and to explain why the combination of the teachings in the prior art is proper. Without such support, the examiner presumably has engaged in impermissible hindsight reconstruction of the appellant's invention. Accordingly, the examiner's rejections of these claims under § 103 is improper and the Board must reverse these rejections.

For the foregoing reasons, the appellant submits that the claims of the present application are not fairly taught by any of the references of record, taken either alone or in combination. Therefore, allowance of the present application is in order, and the appellant respectfully requests the Board to reverse the examiner's rejections.

Rudolf O. Siegesmund

Rudolf O. Siegesmund
Attorney for Applicant
Registration No. 37,720
Gordon & Rees LLP
Suite 2600
2100 Ross Avenue
Dallas, Texas 75201
214-461-4050 (tel)
214-461-4053 (fax)
rsiegesmund@gordonrees.com

CLAIMS APPENDIX

1. A method of providing computer screen security for an authorized user comprising:

using a computer program in a computer having a computer screen, dividing an original image on the computer screen into an array of screen segments ; and

changing the orientation of each of the screen segments so that the original image can only be read by the authorized user viewing at a personal display screen connected to a personal display computer;

wherein the computer and personal display computer are adapted for electronic communication so that the computer program causes the computer to transmit a parameter to the personal display computer;

wherein the personal display computer uses the parameter to orient each of the screen segments and displays an undivided image on the personal display screen so that a user can view the original image on the personal display screen; and

wherein the original image is not visible at the computer screen.

2. The method of claim 1 wherein the step of changing the orientation of each of the screen segments is performed by inversion.

3. The method of claim 1 wherein the step of changing the orientation of each of the screen segments is performed by rotation.

4. The method of claim 1 wherein the step of changing the orientation of each of the screen segments is performed by shrinking.

5. Cancelled

6. The method of claim 5 wherein a personal display computer program in a memory of the personal display computer determines whether a codeword has been received.

7. The method of claim 6 wherein responsive to a determination that a codeword has been received, the personal display computer program accesses a parameter from a personal display computer memory.

8. The method of claim 7 wherein responsive to accessing a parameter from the personal display computer memory, a microprocessor in the personal display computer causes the orientation of each of the screen segments to be changed so that the image can be read by viewing at the personal display screen.

9. A method of providing security for a computer screen comprising:

using a program in a computer, causing the computer to divide an image into an array of screen segments on the computer screen; and

change the orientation of each of the screen segments so that the image can be read only by a person wearing a set of display glasses and the computer screen is incomprehensible to a normal viewer;

transmitting a codeword to a personal display computer in the display glasses;

responsive to receipt of the codeword by the personal display computer, accessing a parameter from a personal display computer memory; and

wherein the display glasses use the parameter to reorganize the scrambled image on the computer screen so that an authorized user can comprehend the image.

10. Cancelled

11. The method of claim 9 wherein responsive to accessing the parameter from the personal display computer memory, a microprocessor in the personal display computer causes the orientation of each of the screen segments to be changed so that the image can be read by viewing at the display glasses.

12. An apparatus for providing computer screen security comprising:

a programmable processor;

a storage medium;

a program residing in the storage medium;

wherein the program causes the processor to:

divide an image into an array of screen segments on a computer screen; and

change the orientation of each of the screen segments so that the image can be read only by viewing through an array of lens units that reorganize the image displayed on the computer screen;

transmit the array of screen segments with changed orientation to a personal display computer connected to an array of lens units;

transmit a codeword to the personal display computer; and

wherein the personal display computer uses the codeword to configure the array of lens units to correspond to a changed orientation of the screen segments created by the computer program.

13. An apparatus for providing computer screen security comprising:

a computer having a programmable processor connected to a storage medium;

a scrambling program residing in the storage medium;

wherein the scrambling program causes the programmable processor to:

divide an image into a plurality of screen segments and change the orientation of each of the plurality of screen segments so that the image is scrambled;

transmit a scrambled image to a personal display computer;

wherein the personal display computer unscrambles the scrambled image so that the original image is displayed on a personal display screen connected to the personal display computer; and

wherein the personal display screen has a frame adapted for wear by a user in the manner of glasses.

14. Cancelled

15. Cancelled

16. The apparatus of claim 14 wherein the personal display computer further comprises a processor and a personal display computer memory containing a computer program and a plurality of parameters corresponding to a plurality of codewords so that upon receipt of a codeword by the personal display computer program, a parameter corresponding to the codeword can be retrieved from the memory and used by the processor to change the orientation of each of the screen segments.

17. Cancelled.

18. The apparatus of claim 14 wherein the personal display computer further comprises a personal display computer transmitter/receiver.

19. The apparatus of claim 18 wherein the personal display computer transmitter/receiver uses a bluetooth technology.

20. The apparatus of claim 18 wherein the personal display computer transmitter/receiver uses a conventional wireless technology.

21. The apparatus of claim 13 wherein the display glasses further comprise a personal display screen and a personal display computer.

22. Cancelled.

23. The apparatus of claim 16 wherein the personal display computer memory further comprises a plurality of code words corresponding to a plurality of parameters.

24. The apparatus of claim 13 wherein the scrambling program inverts each of the plurality of screen segments.

25. The apparatus of claim 13 wherein the scrambling program rotates each of the plurality of screen segments.

26. The apparatus of claim 13 wherein the scrambling program shrinks each of the plurality of screen segments.

EVIDENCE APPENDIX

There is no evidence to be presented.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.

RECEIVED
CENTRAL FAX CENTER
JUL 14 2006

FACSIMILE TRANSMISSION

GORDON & REES LLP

ATTORNEYS AT LAW
2100 ROSS AVENUE, SUITE 2600
DALLAS, TX 75201
PHONE: (214) 461-4050
FAX: (214) 461-4053
WWW.GORDONREES.COM

DATE: July 14, 2006

TO:

NAME	COMPANY	FAX NO.	PHONE NO.
Commissioner for Patents	USPTO	571-273-8300	

FROM: Rudolf O. Siegesmund

SENDER INFORMATION (NAME / USER ID / EXTENSION): / /

FILE NO.: AJBM.029	NUMBER OF PAGES, INCLUDING COVER: 32

IF YOU DO NOT RECEIVE ALL OF THE PAGES, PLEASE PHONE (214) 461-4050 AS SOON AS POSSIBLE.

MESSAGE:

Response to Notice of Non-Compliant Appeal Brief dated 6/14/06

Application No. 09/981,881
Applicant: Lahiri
Title: Apparatus & Method for Computer Screen Security
Examiner: Patel
Filed; 10/18/01
Art Group: 2135
Docket No.: AUS920010744US1

Attached are the following:

1. Response to Notice of Non-Compliant Appeal Brief; and
2. Transmittal Form.

PAGE 1/32 * RCVD AT 7/14/2006 4:05:53 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/11 * DNIS:2738300 * CSID:2144614053 * DURATION (mm-ss):08-22

PTO/SB/21 (09-04)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	09/981,681
Filing Date	10/18/2001
First Named Inventor	Lahiri
Art Unit	2135
Examiner Name	Patel,
Attorney Docket Number	AUS920010744US1

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☐ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
  - ☐ Reply to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) _____
  - ☐ Landscape Table on CD
- ☐ After Allowance Communication to TC
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☑ Other Enclosure(s) (please identify below):

Remarks

Response to Notice of Non-Compliant Appeal Brief

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Gordon & Rees, LLP		
Signature	Rudolf O. Siegesmund		
Printed name	Rudolf O. Siegesmund		
Date	July 14, 2006	Reg. No.	37,720

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature	Rudolf O. Siegesmund		
Typed or printed name	Rudolf O. Siegesmund	Date	July 14, 2006